

WHAT IS CLAIMED IS:

1. A method for long-term storage of hereditary information comprising,

5 providing a genetic sample comprising lyophilized DNA and sugar, the DNA being substantially free of magnesium and with the lyophilized DNA stored in a hermetically sealed UV blocking container under an inert gas.

2. The method of claim 1 wherein the sugar is a monosaccharide or a disaccharide.

10 3. The method of claim 2 wherein the sugar is a disaccharide.

4. The method of claim 3 wherein the disaccharide is trelose or sucrose.

15 5. The method of claim 1 wherein the inert gas is nitrogen or argon.

6. The method of claim 1 wherein the UV blocking container comprises borosilicate.

7. The method of claim 1 wherein the sample comprises greater than 20 μ g of DNA.

20 8. The method of claim 1 wherein the sample comprises greater than 100 μ g of DNA.

9. The method of claim 1 wherein the sample comprises between about 150 and 200 μ g of DNA.

10. The method of claim 1 further comprising lyophilizing the DNA.

11. The method of claim 1 wherein the DNA is obtained from the blood of a subject.

5 12. The method of claim 1 further comprising storing the DNA at a temperature between about -7 °C to about 24 °C.

13. The method of claim 1 wherein the sample further comprises TRIS or EDTA.

10 14. The method of claim 1 wherein the DNA is genomic DNA.

15. The method of claim 1 further comprising isolating DNA.

16. A kit for the long-term storage of hereditary information comprising

15 a box having a first compartment having an aperture that can hold at least one hermetically sealed container, the container comprising lyophilized DNA of a subject and sugar; and a second portion that can hold a computer readable medium.

20 17. The kit of claim 16 wherein a holder member is disposed in the aperture and the holder member holds 4 hermetically sealed containers of the lyophilized DNA of the subject and sugar.

18. The kit of claim 16 wherein the computer readable medium is an optical storage medium.

19. The kit of claim 18 wherein the optical storage medium is a DVD or a CD-ROM.

20. The kit of claim 16 wherein the computer readable medium is a flash memory card.

5 21. The kit of claim 16 wherein the computer readable medium includes stored medical history of the subject.

22. The kit of claim 16 wherein the kit is comprised of cardboard.

10 23. The kit of claim 16 wherein the holder member is comprised of a transparent plastic.

24. The kit of claim 16 wherein the hermetically sealed container is a borosilicate ampoule or borosilicate vial.

25. A method of storing hereditary information of a subject comprising:

15 providing a container to a party;
obtaining a blood sample of a subject in the container;
isolating DNA from the blood sample and lyophilizing the DNA;
storing the lyophilized DNA from the blood sample in a
20 hermetically sealed container; and
providing the party with the stored, lyophilized DNA.

26. The method of claim 25 further comprising lyophilizing a solution of DNA and a sugar.

27. The method of claim 25 further comprising storing personal information of the subject on a computer readable medium.

28. The method of claim 27 further comprising providing 5 the stored personal information of the subject to the party.

29. The method of claim 27 wherein the personal information includes at least one of medical history, family history, personal achievements, diplomas or photographs.

30. The method of claim 27 wherein the lyophilized DNA 10 is provided in the form of a kit.

31. A method for long-term storage of hereditary information comprising,

providing a genetic sample comprising lyophilized DNA and sugar, the DNA being substantially free of magnesium and with 15 the lyophilized DNA stored in a hermetically sealed UV blocking container under an inert gas; and

placing the sealed UV blocking container into a holding member that is inserted into an aperture of a box that together forms kit for the long-term storage of hereditary 20 information.

32. The method of claim 31 wherein the sugar is a monosaccharide or a disaccharide.

33. The method of claim 31 wherein the inert gas is nitrogen or argon.

34. The method of claim 31 wherein the sample comprises greater than 20 μ g of DNA.

35. The method of claim 31 further comprising storing the DNA at a temperature between about -7 $^{\circ}$ C to about 24 $^{\circ}$ C.

5 36. The method of claim 31 wherein the DNA is genomic DNA.

37. The method of claim 31 wherein the holder member holds 4 hermetically sealed containers of the lyophilized DNA and sugar.

10 38. The method of claim 16 further comprising: disposing on the box a computer readable medium embodying personal information of the subject whose DNA is stored in the hermetically sealed containers.

15 39. The method of claim 31 wherein the box is comprised of cardboard.

40. The method of claim 31 wherein the holder member is comprised of a transparent plastic.